

October 25, 2004

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Peter W. Gaudet, Donald A. Olsen, Michael J. Eacobacci and John T. Harvell  
Application No.: 10/750,547 Group Art Unit: 3744  
Filed: December 31, 2003 Examiner:  
Confirmation No.: 5579  
Title: CRYOPUMP TEMPERATURE CONTROL OF ARRAYS

<b>CERTIFICATE OF MAILING OR TRANSMISSION</b>	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:	
<u>10/26/2004</u>	<u>Loretta A. Boudreau</u>
Date	Signature
<u>L ORETTE A. BOUDREAU</u>	
Typed or printed name of person signing certificate	

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted:

- ☐ under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)
- ☒ under 37 CFR 1.97(b), or  
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).
- ☐ under 37 CFR 1.97(c) together with either:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, or
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, and
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)
- ☐ under 37 CFR 1.97(i):  
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.  
(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
- ☒ Copies of the cited references are enclosed.
- ☒ Since this application was filed after June 30, 2003, copies of issued U.S. patents and published U.S. applications are not required and are not being provided.
- ☐ Copies of the cited references are enclosed except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
- ☐ The listed references were cited in the enclosed International Search Report in a counterpart foreign application.
- ☒ The "concise explanation" requirement (non-English references) for references AO-AQ under 37 CFR 1.98(a)(3) is satisfied by:
- ☐ the explanation provided on the attached sheet.
- ☐ the explanation provided in the Specification.
- ☐ submission of the enclosed International Search Report.
- ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
- ☒ the enclosed English language abstract.

☐ Applicant requests that the following non-published pending applications be considered:

Examiner's  
Initials

\_\_\_\_\_ U.S. Patent Application No. [    ], by [inventor(s)], filed [    ], Docket No.: [    ]

\_\_\_\_\_ U.S. Patent Application No. [    ], by [inventor(s)], filed [    ], Docket No.: [    ]

\_\_\_\_\_ U.S. Patent Application No. [    ], by [inventor(s)], filed [    ], Docket No.: [    ]

\_\_\_\_\_  
Examiner

\_\_\_\_\_  
Date

☐ A copy of each above-cited application, including the current claims, is enclosed.

☐ A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [    ], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

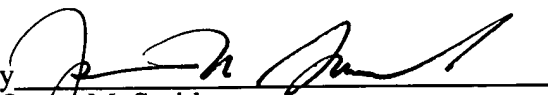
☐ A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.

☐ Please charge Deposit Account 08-0380 in the amount of \$[    ]. A copy of this Statement is enclosed.

☒ Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

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Concord, MA 01742-9133

Dated: *10/25/4*

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.  
0100.1361-027APPLICATION NO.  
10/750,547INFORMATION DISCLOSURE CITATION  
IN AN APPLICATIONFIRST NAMED INVENTOR  
Peter W. GaudetFILING DATE  
12/31/03

October 25, 2004

EXAMINER  
N/ACONFIRMATION NO.  
5579GROUP  
3744

(Use several sheets if necessary)

## U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
	AA	4,354,356	10-19-1982	Milner
	AB	4,361,418	11-30-1982	Tscheppe
	AC	4,412,851	11-01-1983	Laine
	AD	4,438,632	03-27-1984	Lessard, <i>et al.</i>
	AE	4,546,613	10-15-1985	Eacobacci, <i>et al.</i>
	AF	4,602,642	07-29-1986	O'Hara, <i>et al.</i>
	AG	4,614,093	09-30-1986	Bachler, <i>et al.</i>
	AH	4,633,672	01-06-1987	Persem, <i>et al.</i>
	AI	4,667,477	05-26-1987	Matsuda, <i>et al.</i>
	AJ	4,679,401	07-14-1987	Lessard, <i>et al.</i>
	AK	4,688,261	08-18-1987	Killoway, <i>et al.</i>
	AA2	4,724,677	02-16-1988	Foster
	AB2	4,757,689	07-19-1988	Bachler, <i>et al.</i>
	AC2	4,829,774	05-16-1989	Wassibauer, <i>et al.</i>
	AD2	4,918,930	04-24-1990	Gaudet, <i>et al.</i>
	AE2	4,926,648	05-22-1990	Okumura, <i>et al.</i>
	AF2	4,953,359	09-04-1990	Forth, <i>et al.</i>
	AG2	4,873,833	10-17-1989	Pfeiffer, <i>et al.</i>
	AH2	4,958,499	09-25-1990	Haefner, <i>et al.</i>
	AI2	5,060,263	10-22-1991	Bosen, <i>et al.</i>
	AJ2	5,062,271	11-05-1991	Okumura, <i>et al.</i>
	AK2	5,062,771	11-05-1991	Satou, <i>et al.</i>
	AA3	5,157,928	10-27-1992	Gaudet, <i>et al.</i>
	AB3	5,222,135	06-22-1993	Hardy, <i>et al.</i>
	AC3	5,265,431	11-30-1993	Gaudet, <i>et al.</i>
	AD3	5,323,465	06-21-1994	Avarne

EXAMINER

DATE CONSIDERED

**October 25, 2004**

(Use several sheets if necessary)

EXAMINER  
N/A

CONFIRMATION NO.  
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3744

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DATE CONSIDERED

PTO-1449 REPRODUCED  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  <b>October 25, 2004</b>  (Use several sheets if necessary)	ATTORNEY DOCKET NO. <b>0100.1361-027</b>		APPLICATION NO. <b>10/750,547</b>	
	FIRST NAMED INVENTOR <b>Peter W. Gaudet</b>		FILING DATE <b>12/31/03</b>	
	EXAMINER <b>N/A</b>	CONFIRMATION NO. <b>5579</b>	GROUP <b>3744</b>	

FOREIGN PATENT DOCUMENTS						
		DOCUMENT NUMBER Country Code-Number-Kind Code (if known)	DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	TRANSLATION YES NO	
	AL	CH 652 804 A5	11-29-1985	Balzers Aktiengesellschaft		
	AM	GB 2 065 782	07-01-1981	Leybold-Heraeus GmbH		
	AN	JP 2-204696	08-1990	Shimazu Corporation	X	
	AO	JP 403107599	05-07-1991	NTN Corp.		X
	AP	JP 403182698	08-08-1991	Seiko Seiki Co. Ltd.		X
	AQ	JP 4-164188	06-1992	Omato, <i>et al.</i>		X
	AL2					
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	AQ3					
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	AM4					
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	AQ4					

EXAMINER	DATE CONSIDERED
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PTO-1449 REPRODUCED  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  <b>October 25, 2004</b>  (Use several sheets if necessary)	ATTORNEY DOCKET NO. 0100.1361-027		APPLICATION NO. 10/750,547	
	FIRST NAMED INVENTOR Peter W. Gaudet		FILING DATE 12/31/03	
	EXAMINER N/A		CONFIRMATION NO. 5579	GROUP 3744

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
AR	Sheats and Halverson, "State of the Art Microprocessor Technology Applied to Cryogenic Temperature Readout and Control," Cryogenic Conference, San Diego, CA 1981, pp. 1183-1188.	
AS	Finley, "Automatic regeneration of multiple cryopumps," <u>J. Vac. Sci. Technology</u> , A4(3), May/June 1986, pp. 310-313.	
AT	Temescal product description, September 1982.	
AU	Peterson, John F., "Cryopump Regeneration for Optimized Uptime," <u>Solid State Technology</u> , April 1986, pp. 199-201.	
AV	Longworth, R.C., et al., "Cryopump regeneration studies," <u>J. Vac. Sci. Technology</u> , 21(4), Nov./Dec. 1982, pp. 1022-1027.	
AW	Peterson, John F. et al., "Vacuum Pump Technology; A Short Course on Theory and Operations," <u>Solid State Technology</u> , January 1982, pp. 104-110.	
AX	Sievert, Reinhard, "Regenerating Refrigerator-Cryopumps Cooled," <u>Solid State Technology</u> , May 1986, pp. 90-92.	
AY	Singer, Peter H., "Update on Cryogenic Pumps," <u>Semiconductor International</u> , October 1982, pp. 89-99.	
AZ	Ehmann, John, "Regeneration of High-Vacuum Cryopumps," <u>Solid State Technology</u> , April 1982, pp. 235-239.	
AR2	Brown, Thomas, et al., "Microcomputer Applications in the Space Simulation Laboratory," <u>Proceedings - Institute of Environmental Sciences</u> , 1983, pp. 179-188.	
AS2	Sheats, David C., et al., "Microprocessor-Based Cryopump Controller," Cryogenic Conference, August 15-19, 1983.	
AT2	Pamphlet, "Cryopumping," CTI-Cryogenics, 1986, 4 pages.	
AU2	Brochure, "ATP 1500M, Magnetically Levitated Turbomolecular Pump," Alcatel CIT Industries Division, April 1992, pp. 1-4.	
AV2	O'Hanlon, John F., <u>A User's Guide to Vacuum Technology</u> , Second Edition, Chapter 11, "Turbomolecular Pumps," 1989, pp. 181-195.	

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**October 25, 2004**

(Use several sheets if necessary)

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**AW2**

O'Hanlon, John F., A User's Guide to Vacuum Technology, Second Edition, Section 19.2, "Turbomolecular-Pumped Systems," 1989, pp. 361-368.

**AX2**

O'Hanlon, John F., A User's Guide to Vacuum Technology, Second Edition, Section 20.2.2, "Turbomolecular Pumps," 1989, pp. 393-394.

DATE CONSIDERED